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Notice of Allowability

Application No.

09/703,144

Examiner

Barry J. O'Brien

Applicant(s)

HOYLE ET AL.

Art Unit

2183

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE filed on 7/15/2004.
2. ☒ The allowed claim(s) is/are 1-2, 4, 10-11, 13, 15-19, 20-24 and 25-33, which have been renumbered as 1-2, 3, 9-10, 11, 4-8, 12-16, and 17-25, respectively.
3. ☒ The drawings filed on 31 October 2000 are accepted by the Examiner.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of the:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.

(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

2. Please replace the title with the following: --Microprocessor with branch-decrement instruction that provides a target and conditionally modifies a test register if the register meets a condition--.

REASONS FOR ALLOWANCE

3. The following is an examiner's statement of reasons for allowance: Claims 1-2, 4 and 15-19 were previously noted as being allowable. The Applicant's arguments with respect to claims 10-11, 13 and 20-33 are persuasive.
4. The Applicant argues with respect to claim 10 that the Intel registers CX and ECX of the prior art of record are not plural distinct registers because ECX includes all of the contents of the CX register (see p.12 of amendment filed 7/15/04). The examiner agrees with the Applicant's argument. The prior art of record has taught a "logical description" of a method, rather than the specific digital system implementing such a method. Thus the added limitation of defining an instruction that specifies a test register from amongst a plurality of test registers makes the claim language allowable over the "logical description", as the "logical description" does not define the ability to specify a specific test register within the branch decrement instruction. Furthermore, as

noted in regards to claims 1-2, 4 and 15-19 in the Final Rejection mailed on 3/24/04, the prior art of record has taught the modification of the test registers being an unconditional operation, while the invention as claimed in claim 10 recites the decrement circuitry conditionally providing a decremented value of the test register to the test register (see paragraph 25, "Allowable Subject Matter", of Final Rejection mailed 3/24/04). Thus for the reasons above, claim 10 and its dependent claims are allowable over the prior art of record.

5. The Applicant argues with respect to claim 25 that prior art of record has taught the selection of Intel registers CX or ECX based on the current address size, rather than based on an operand field of a conditional branch-decrement instruction (see p.14 of amendment filed 7/15/04). The examiner agrees with the Applicant's argument. The prior art of record has taught a "logical description" of a method, rather than the specific digital system implementing such a method. Thus the added limitation of defining an instruction which includes an operand field specifying a specific test register makes the claim language allowable over the "logical description", as the "logical description" does not define the ability to specify a specific test register within an operand field of the branch decrement instruction. Furthermore, as noted in regards to claims 1-2, 4 and 15-19 in the Final Rejection mailed on 3/24/04, the prior art of record has taught the modification of the test registers being an unconditional operation, while the invention as claimed in claim 25 recites the decrement circuitry conditionally providing a decremented value of the test register to the test register (see paragraph 25, "Allowable Subject Matter", of Final Rejection mailed 3/24/04). Thus for the reasons above, claim 25 and its dependent claims are allowable over the prior art of record.

6. The Applicant argues with respect to claim 30 that the prior art of record has not taught that the branch address is a combination of a displacement field of the conditional branch-decrement instruction and the program counter contents (see p.14 of amendment filed 7/15/04). The examiner agrees with the Applicant's argument. The prior art of record has taught a "logical description" of a method, rather than the specific digital system implementing such a method. Thus the added limitation of defining an instruction that includes a displacement field that can be combined with the program counter to make the branch address makes the claim language allowable over the "logical description", as the "logical description" does not define the ability to specify a displacement field within the branch decrement instruction. Furthermore, as noted in regards to claims 1-2, 4 and 15-19 in the Final Rejection mailed on 3/24/04, the prior art of record has taught the modification of the test registers being an unconditional operation, while the invention as claimed in claim 30 recites the decrement circuitry conditionally providing a decremented value of the test register to the test register (see paragraph 25, "Allowable Subject Matter", of Final Rejection mailed 3/24/04). Thus for the reasons above, claim 30 and its dependent claims are allowable over the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant is reminded that in amending in response to a rejection of claims, the patentable novelty must be clearly shown in view of the state of the art disclosed by the references cited and the objections made. Applicant must also show how the amendments avoid such references and objections. See 37 CFR § 1.111(c).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barry J. O'Brien whose telephone number is (703) 305-5864. After October 12th, 2004, the examiner can be reached at (571) 272-4171. The examiner can normally be reached on Mon.-Fri. 6:30am-4:00pm, with the exception of first Friday of every bi-week.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Chan can be reached at (703) 305-9712, or at (571) 272-4162 on or after October 12th, 2004. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Barry J. O'Brien

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Examiner
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BJO
9/1/2004



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SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100